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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/956,971	09/21/2001	Thomas E. Slowe	37112-173581	6865

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EXAMINER

CZEKAJ, DAVID J

ART UNIT PAPER NUMBER

2621

DATE MAILED: 07/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/956,971

Applicant(s)

SLOWE ET AL.

Examiner

Dave Czekaj

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/4/06 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claims 1, 27, and 29 are objected to because of the following informalities: The examiner notes the limitation "such camera-motion layer being a layer that ***appears*** to move" found in the claims is vague. The examiner suggests changing the limitation to read "such camera-motion layer being a layer that moves with the camera". Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 26 is rejected under 35 U.S.C. 101 because the claims do not meet the 35 U.S.C. 101 requirements (the claims have improper language regarding the computer

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readable medium and computer system). Please see the USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" in the Official Gazette notice of 22 November 2005, Annex IV, page 53. The examiner further suggests changing "comprising software to perform" to "comprising software for the computer to perform".

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2, 22, 25-27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda (6625316) in view of Burt et al. (6393163), (hereinafter referred to as "Burt").

Regarding claims 1, 25-27, and 29, Maeda discloses an apparatus that relates to extracting an object from an image and processing the extracted image (Maeda: column 1, lines 8-11). This apparatus comprises "editing at least one or more original camera motion layers to obtain modified camera motion layers such that each from of a video sequence composed from the modified camera motion layers and the original fixed frame layers is obtained without editing each from of the original sequence" (Maeda: column 13, lines 15-28, wherein the original camera motion layers is the background, the editing is the process of

modifying the input, and the modified layer is the background after the editing has occurred). Although Maeda fails to show the modified camera motion layer corresponding to an original camera motion layer having a substantially non-stationary component as claimed, Maeda does show modifying a camera motion layer corresponding to an original camera-motion layer (Maeda: figure 8, column 10, lines 55-65, wherein the camera motion layer is the background captured by items 202 and 207. The examiner notes that since the background is a motion image, the substantially non-stationary component is the motion image described having little motion). However, Maeda fails to disclose the camera motion layer being a layer that appears to move with the camera as the camera moves. Burt teaches that image processing systems process images in an inefficient individual manner (Burt: column 1, lines 24-26). To help alleviate this problem, Burt discloses "the camera motion layer being a layer that appears to move with the camera as the camera moves" (Burt: figure 9, wherein the background appears to move as the camera is moving). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Maeda and add the processing taught by Burt in order to obtain an apparatus that can process a plurality of images at the same time.

Regarding claims 2 and 22, Maeda discloses "converting one of the original camera motion layers to an original image" (Maeda: column 13, lines 15-28, wherein the converting is the decoding to obtain an image), "editing to obtain

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a modified image” (Maeda: column 13, lines 15-28, wherein the editing is the process of modifying the input), and “converting the modified image to one of the modified camera motion layers” (Maeda: column 14, lines 38-40, wherein the modified image is converted or synthesized with the rest of the layers).

7. Claims 3-5 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda (6625316) in view of Burt et al. (6393163), (hereinafter referred to as “Burt”) in further view of Jasinski et al. (6504569), (hereinafter referred to as “Jasinski”).

Regarding claims 3 and 23, note the examiners rejection for claim 1, and in addition, claims 3 and 23 differ from claim 1 in that claims 3 and 23 further require rectifying the original and modified image prior to editing and converting the image. Jasinski teaches that it is well known in the art to rectify an image before manipulating the object (Jasinski: column 1, lines 20-31, wherein the rectifying is projecting the images on different planes). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the image rectifying taught by Jasinski in order to obtain an apparatus that edits an object correctly by first placing the object in the correct perspective.

Regarding claims 4 and 5, Maeda discloses “inserting, deleting, or changing a portion to obtain modified camera motion layers” (Maeda: column 13, lines 15-28, wherein the changing is the enlargement or reduction which then replaces the camera motion layer).

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8. Claims 6, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda (6625316) in view of Burt et al. (6393163), (hereinafter referred to as "Burt") in further view of Foreman et al. (6628303), (hereinafter referred to as "Foreman").

Regarding claims 6 and 15, note the examiners rejection for claim 1, and in addition, claims 6 and 15 differ from claim 1 in that claims 6 and 15 further require adding a video sequence to the original camera motion layers. Foreman teaches that prior art video processing systems are very complex utilizing multiple windows for controlling parameters of video (Foreman: column 1, lines 39-41). To help alleviate this problem, Foreman discloses a single interface wherein a user can "add a video sequence to one of the original camera motion layers" (Foreman: figure 8, column 9, lines 61-62, wherein the video sequence is the shots). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the editing system taught by Foreman in order to obtain an apparatus that is easy to use by all users.

Regarding claim 13, Foreman discloses "modifying an order of one of the original camera motion layers" (Foreman: figure 8, column 9, lines 61-67, wherein modifying the order is modifying the order in which the video is inserted).

9. Claims 7-12, 14, 16-21, 24, 28, and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda (6625316) in view of Burt et al. (6393163), (hereinafter referred to as "Burt") in further view of Petelycky et al. (6204840), (hereinafter referred to as "Petelycky").

Regarding claim 7, note the examiners rejection for claim 1, and in addition, claim 7 differs from claim 1 in that claim 7 further requires adding an animation sequence to one of the original camera motion layers. Petelycky teaches that prior art video editing systems are difficult to learn and use (Petelycky: column 1, lines 39-44). To help alleviate this problem, Petelycky discloses an apparatus that provides an interface that allows the user to “add animation sequences to one of the original camera motion layers” (Petelycky: figure 3E, column 15, lines 1-28). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the editing system taught by Petelycky in order to obtain an apparatus that is easy to learn and use.

Regarding claims 8-9, although not disclosed, it would have been obvious to add a 3-D object or user-activated region to one of the camera motion layers (Official Notice). Doing so would have been obvious in order to make the video more appealing to the user.

Regarding claim 10, Petelycky discloses “modifying an on/off time of one of the original camera motion layers” (Petelycky: figure 3B, wherein the on/off time is modified by use of the sliders).

Regarding claim 11, Petelycky discloses “modifying an opaqueness of one of the original camera motion layers” (Petelycky: figure 3E, wherein the opaqueness is modified using the transparent slider).

Regarding claim 12, Petelycky discloses "modifying fade-in/fade-out of one of the original camera motion layers" (Petelycky: figure 3F, items 364-365).

Regarding claim 14, Petelycky discloses "deleting one of the original camera motion layers" (Petelycky: column 11, lines 53-54).

Regarding claim 16, Petelycky discloses "modifying a size of one of the original camera motion layers" (Petelycky: figure 3E, wherein the size is modified by the size slider).

Regarding claims 17-19 and 24, Maeda discloses "editing camera motion parameters of one of the original camera motion layers" (Maeda: column 13, lines 15-25, wherein the camera motion parameters are described by the affine transformation, which is based on analytical calculations for both the foreground and background objects).

Regarding claim 20, Maeda discloses "replacing the camera motion parameters with camera motion parameters from another video sequence" (Maeda: column 13, lines 15-25, column 14, lines 38-44, wherein replacing is the synthesizing different objects from different source layers which all have different camera motion parameters or affine transformations).

Regarding claims 21 and 28, Maeda discloses "editing at least one of the fixed-frame layers" (Maeda: figure 15, wherein the cattle is the fixed frame layer or foreground object).

Regarding claim 30, note the examiners rejection for claims 1 and 17.

Regarding claims 31-32, although not disclosed, it would have been obvious to specify a coordinate transformation between image planes (Official Notice). Doing so would have been obvious in order to correctly display the images to a user.

Regarding claim 33, Burt discloses "the camera movement includes panning" (Burt: column 17, lines 8-10).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Czekaj whose telephone number is (571) 272-7327. The examiner can normally be reached on Monday - Friday 9 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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